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Total Number of Pages in This Submission

	<i>I</i>
Patent No.	6,448,381
Issued	September 10, 2002
First Named Inventor	DEUEL, Thomas, F.
Group Art Unit	1646
Examiner Name	Eyler, Yvonne, L.
Attorney Docket Number	60019620-0003

		EN	ICLOS	URES (check all that appl	у)			
	Fee Transmittal Fo	om ·		Assignment Papers (for an Application)		After Allowance	e Communication	
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	Amendment / Rep	oly		Licensing-related Papers			unication to Group	
	Affidavits/de	avits/declaration(s)		Petition Petition to Convert to a		Proprietary Information		
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Firm or Individ	ual Name	Michael T. Marrah	1				·	
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: EYLER, Yvonne, L.

Group Art Unit: 1646

In re application of

DEUEL, Thomas, F. et al.

Patent No.: 6,448,381

Issued: September 10, 2002

For: DNA ENCODING HEPARIN BINDING GROWTH FACTORS

Attorney Docket: 60019620-0003

Assistant Commissioner for Patents Washington, DC 20231

REQUEST FOR CERTIFICATE OF CORRECTION PURSUANT TO 37 CFR 1.322

Sir:

Transmitted herewith is a proposed Certificate of Correction for the above-captioned Letters Patent.

Patentee submits that the errors set forth in the proposed Certificate of Correction were made by the Patent and Trademark Office and no fee is due. If this is incorrect, please charge any necessary fees to Deposit Account No. 19-3140.

Patentee respectfully requests the issuance of the proposed Certificate of Correction.

Respectfully submitted,

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Michael T. Marrah, Reg. No. 40,718

SONNENSCHEIN NATH & ROSENTHAL

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(Also Form PTO-1050)

# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO: 6,448,381

DATED: September 10, 2002

INVENTOR(S): DEUEL, Thomas, F. et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

AGATGTAAGA TCCCCTGCAA	CTGGAAGAAG	CAATTTGGCG	CGGAGTGCAA	550
ATACCAGTTC CAGGCCTGGG	GAGAATGTGA	CCTGAACACA	GCCCTGAAGA	600
CCAGAACTGG AAGTCTGAAG	CGAGCCCTGC	ACAATGCCGA	ATGCCAGAAG	650
ACTGTCACCA CTCCCAAGCC	CTGTGGCAAA	CTGACCAAGC	CCAAACCTCA	700
AGCAGAATCT AAGAAGAAGA	AAAAGGAAGG	CAAGAAACAG	GAGAAGATGC	750
TGGATTAAAA GATGTCACCT	GTGGAACATA	AAAAGGACAT	CAGCAAACAG	800
GATCAGTTAA CTATTGCATT	TATATGTACC	GTAGGCTTTG	TATTCAAAAA	850
TTATCTATAG CTAAGTACAC	AATAAGCAAA	AACAAAAAGA	AAAAAAAAA	900
	AAAAAAAAA	AAAAAAAAA	AAAAAAAAA	950
				961.

MAILING ADDRESS OF SENDER:

SONNENSCHEIN NATH & ROSENTHAL PO Box #061080, Wacker Drive Station-Sears Tower Chicago, Illinois 60606-1080 PATENT NO. 6,448,381

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### UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,448,381

DATED: September 10, 2002

INVENTOR(S): DEUEL, Thomas, F. et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

#### Add Claim 3 as follows:

3. A purified and isolated DNA sequence consisting of a sequence encoding bovine heparing binding growth factor of 168 amino acids havaing the following amino acid sequence:

Met Gln Thr Pro Gln Tyr Leu Gln Gln Arg Arg Lys Phe Ala Ala

Ala Phe Leu Ala Phe Ile Phe Ile Leu Ala Ala Val Asp Thr Ala 30

Glu Ala Gly Lys Lys Glu Lys Pro Glu Lys Lys Val Lys Lys Ser

Asp Cys Gly Glu Trp Gln Trp Ser Val Cys Val Pro Thr Ser Gly

Asp Cys Gly Leu Gly Thr Arg Glu Gly Thr Arg Thr Gly Ala Glu 75

Cys Lys Gln Thr Met Lys Thr Gln Arg Cys Lys Ile Pro Cys Asn

Trp Lys Lys Gln Phe Gly Ala Glu Cys Lys Tyr Gln Phe Gln Ala 105

Trp Gly Glu Cys Asp Leu Asn Thr Ala Leu Lys Thr Arg Thr Gly 120

Ser Leu Lys Arg Ala Leu His Asn Ala Asp Cys Gln Lys Thr Val 135

Thr- lle Ser Lys Pro Cys Gly Lys Leu Thr Lys Ser Lys Pro Gln 150

Ala Glu Ser Lys Lys Lys Lys Glu Gly Lys Lys Gln Glu Lys 165

Met Leu Asp 168

PATENT NO. 6,448,381

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CERTIFICATE OF CORRECTION

PATENT NO: 6,448,381

DATED: September 10, 2002

INVENTOR(S): DEUEL, Thomas, F. et al.

: It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

The title should be replaced with "DNA ENCODING HEPARIN BINDING GROWTH FACTORS."

In Column 1, line 55, delete "." which appears after ";" and before "Zhan."

In Column 5, nucleotide 314 should be changed from "d" to "G."

In Column 5, line 62, the extra space which appears after "ity" should be removed.

In Column 10, line 6, add "." between "7.0" and "About."

In Table II, HBGF8 should be replaced with "95% GLY-LYS-LYS-GLU-LYS-PRO-GLU-LYS-LYS-VAL-LYS-LYS-SER-ASP-CYS-GLY-GLU-TRP-GLN-TRP-SER-VAL-CYS-VAL-PRO."

In Column 10, line 57, add a space after "5299" and before "(1979)."

 $\mathscr{WO}$  In Column 12, line 23, replace "Thr" with "Ala"; replace "Pro" with "Gln"; and replace "Leu" with "Gln.")

1/0 In Column 12, line 41, replace "Asp" with "Glu."

(//) In Column 12, line 43, replace second "Ser" with "Pro."

In Column 12, line 48, add "punfied and isolated" before "cDNA" and after "The" and replace "bovine" with "human."

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PATENT NO: 6,448,381

DATED: September 10, 2002

INVENTOR(S): DEUEL, Thomas, F. et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

AGAAACAGGA	GAAGATGCTG	GACTAAAAGC	CACCACCTTC	CGTGGACCAT	700
GAAAAGGACA	TCAGCAAACA	CGATCAGTTA	ACTATTGCAT	TTATATCTAC	750
CGTAGGCTTT	TTATTCAAAA	ATTATCTATA	GCTTAAGTAC	ACAATAGGCA	800
GAAACAAAAT	GAAAAGAAAA	ATTTTGTAGT	AGCATTTTT	TTAAATGTAT	850
CAATATACCA	TAGTACCACT	AGGGACTTAT	AATAGAGGAC	TGTAATCCTA	900
TTTAGAATGT	TGACTTATAG	TACATGTTAA	GTGATAGAAA	ACTGAGGTAA	950
GTTTTTGAA	GTTATGTGAT	ATTITACATT	ACATTTTTT	TTACATTTTT	1000
TTCTTTTGGC	AGCAATTTAA	ATGTTATGAC	TATGTAAACT	ACTTCTCTTG	1050
TTAGGTAATT	TTTTTCACCT	AGACTTTATT	TCCCAATTGA	GAAAAATATC	1100
TACTAAACAA	AGCAGCAATA	AAATATGATC	ATCCTATCTG	AGGAAAATAT	1150
стсттттст	GCCAGTGGAT	TTTTAAAAAA	TTGTAGTCAA	CAAAAT	1196

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO: 6,448,381

DATED: September 10, 2002

. INVENTOR(S): DEUEL, Thomas, F. et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

The sequence of Claim 2 should read:

G	TCAAAGGCA	GGATCAGGTT	CCCCGCCTCC	CAGTCCAAAA	ATCCCGCCAA	50
G	AGAGCCCCA	GAGCAGAGGA	AAATCCAAAG	TGGAGAGAGG	GGAAGAAAGA	100
G	ACCAGTGAG	TCATCCGTCC	AGAAGGCGGG	GAGAGCAGCA	GCGGCCCAAG	150
C	AGGAGCTGC	AGCGAGCCGG	GTACCTGGAC	TCAGCGGTAG	CAACCTCGCC	200
С	CTTGCAACA	AAGGCAGACT.	GAGCGCCAGA	GAGGACGTTT	CCAACTCAAA	250
A	ATGCAGGCT	CAACAGTACC	AGCAGCAGCG	TCGAAAATTT	GCAGCTGCCT	300
T	CTTGGCATT	CATTTTCAŢA	CTGGCAGCTG	TGGATACTGC	TGAAGCAGGG	350
A	AGAAAGAGA	AACCAGAAAA	AAAAGTGAAG	AAGTCTGACT	GTGGAGAATG	400
G	CAGTGGAGT	GTGTGTGC	CCACCAGTGG	AGACTGTGGG	CTGGGCACAC	450
G	GGAGGGCAC	TCGGACTGGA	GCTGAGTCCA	AGCAAACCAT	GAAGACCCAG	500

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PATENT NO: 6,448,381

DATED: September 10, 2002

INVENTOR(S): DEUEL, Thomas, F. et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

#### Add Claim 4 as follows:

G,	AGTGGAGAG	AGTAGAAGAA	AGAGAGCAGG	GAGTCACCGG	GCGTGCGGGG	50
G	CGGAGAGCA	GCGGCCGCCG	CGAGCACCAG	CGACTTGGGT	ACCTGGACTC	100
ΑŒ	GGCAGAAA	AACCTCTCCC	GGATCAACAA	AGGCAGCCTG	AGCGCGCACC	150
G	стсттттес	GACTCCAAAA	TGCAGACTCC	ACAGTACCTG	CAGCAACGTC	200
G	AAAATTTGC	AGCTGCCTTT	TTGGCATTTA	TTTTCATCTT	GGCAGCTGTG	250
G	ACACCGCTG	AAGCAGGAAA	GAAAGAGAAA	CCAGAAAAGA	AGGTGAAGAA	300
G <sup>-</sup>	TCTGACTGT	GGAGAATGGC	AGTGGAGTGT	GTGTGTACCA	ACCAGTGG C	350
ΑŒ	ствтввест	GGGCACCCGC	GAGGGCACCC	GTACCGGAGC	TGAGTGTAAA	400
C/	AAACCATGA	AGACCCAGAG	ATGTAAGATC	CCCTGCAACT	GGAAAAAGCA \	450
A٦	FTTGGAGCG	GAGTGCAAAT	ACCAGTTCCA	GGCCTGGGGA	GAATGTGATC	500
TO	GAACACGGC	TCTGAAGACC	CGAACTGGGA	GCCTGAAGCG	AGCCCTCCAC	550
A	ACGCCGACT	GCCAGAAGAC	AGTCACCATC	TCCAAGCCCT	GTGGCAAGCT	600
G	ACCAAGTCC	AAACCTCAAG	CAGAATCTAA	GAAGAAGAAA	AAGGAAGGCA	650

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